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Listing of Claims:

1. (currently amended) A method for reserving resources in a wireless network to accommodate the future resource demands of call traffic, said method comprising the steps of:

monitoring a resource to obtain a resource value;

estimating predicting radio dependent and radio independent layer resources needed for future calls radio dependent and radio independent layers based on said monitored resource value; and

reserving said needed resources at the radio dependent and radio independent layers based on said estimate prediction.

- 2. (original) The method of claim 1 wherein said monitoring step further includes the step of monitoring handoff call arrivals, resource requirement, and resource usage.
- 3. (currently amended) The method of claim 2 further comprising the step of updating the rate at which said estimating predicting is done if the difference in resource usage is greater than or equal to a pre-determined value.
- 4. (currently amended) The method of claim 3 wherein said step of estimating predicting further includes the step of modeling the resources needed as a Wiener process.
 - 5. (original) The method in accordance with claim 3 said calls are handoff calls.
- 6. (original) The method in accordance with claim 3 wherein said calls are new calls originating within a cell.
- 7. (original) The method in accordance with claim 3 wherein said calls are handoff calls and new calls originating within a cell
- 8. (currently amended) A method for reserving resources in a mobile wireless internet protocol network to accommodate future resource demands of users, said method comprising the steps at a base station of:

monitoring call arrivals and resource requirements;

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responsive to said monitoring, estimating predicting the radio dependent and radio independent resources required; and

instructing radio independent and radio dependent layers to reserve the estimated predicted resources for future calls.

- (currently amended) The method in accordance with claim 8 wherein said estimating predicting step resides at a radio-independent layer of the internet protocol.
- 10. (original) The method in accordance with claim 8 further comprising increasing the rate of said monitoring step if the difference in resource usage is greater than or equal to a threshold value.
- 11 (currently amended) The method in accordance with claim 10 wherein said estimating predicting step comprises Wiener process-based stochastic models.
- 12. (currently amended) The method in accordance with claim 11 wherein said estimating predicting step resides at a radio-independent layer of the internet protocol.
 - 13. (original) The method of claim 12 wherein said calls are handoff calls.
- 14. (original) The method in accordance with claim 12 wherein said calls are new calls originating within a cell.
- 15. (original) The method in accordance with claim 12 wherein said calls are handoff calls and new calls originating within a cell.
- 16. (original) The method in accordance with claim 8 wherein said step of monitoring monitors instantaneous values of handoff call arrivals and resource requirements.
- 17. (original) The method in accordance with claim 8 wherein said instructing step causes reservation of both radio resources and internet protocol layer resources.
- 18. (currently amended) The method in accordance with claim 17 wherein said estimating predicting step is based on a stochastic model.